

1. Explain in writing what are packages:

Packages are distributions of software, applications, and data. They contain metadata such as purpose, name, version, and a list of dependencies. It basically contains everything you need to install a program.

2. Explain in writing what repositories are:

A repository is a collection of software for a Linux distribution on a server. It is a centralized place for trusted software to be uploaded so that everyone can have access to a safe and reliable software. Repositories must be kept separate in order to ensure that the software you are getting is compatible with you distribution of Linux.

3. Explain in writing where to find repositories:

You can find the currently installed repositories on the system in the file called /etc/apt/sources.list. If you are looking to install third party repositories you can do so by getting them from their source and adding them into the file mentioned above or using the CLI using the command “sudo add-apt-repository “add repo here””

4. Explain in writing how to install a repository

There are 2 different ways to install a repository in Linux. You can either install them via the CLI using the command “sudo add-apt-repository “add repo here”” followed by the command "sudo apt-get update". The other way is by adding them via the GUI under the Software and Updates.

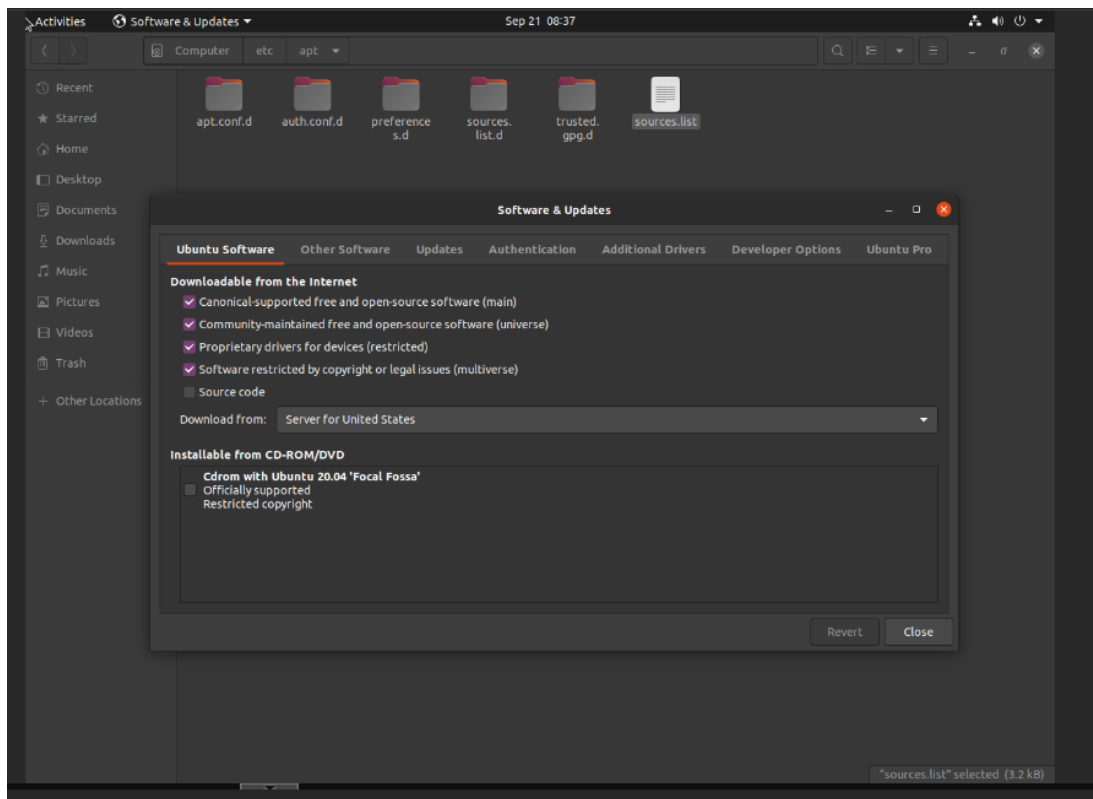
5. Explain in writing what are RAIDs and why they are used:

RAID stands for Redundant Array of Independent Disks. Data is distributed across drives depending on the Raid Level. The standard raid levels are RAID 0, RAID 1, RAID 5, and RAID 6. There are also nested raid levels like RAID 1+0 commonly referred to as RAID 10. They are user to provide either better performance or data redundancy or a combination of both. The cost of hardware to create a RAID is relatively inexpensive compared to the data loss due to hardware failure or poor planning. When considering cost being reactive is much more costly than being proactive.

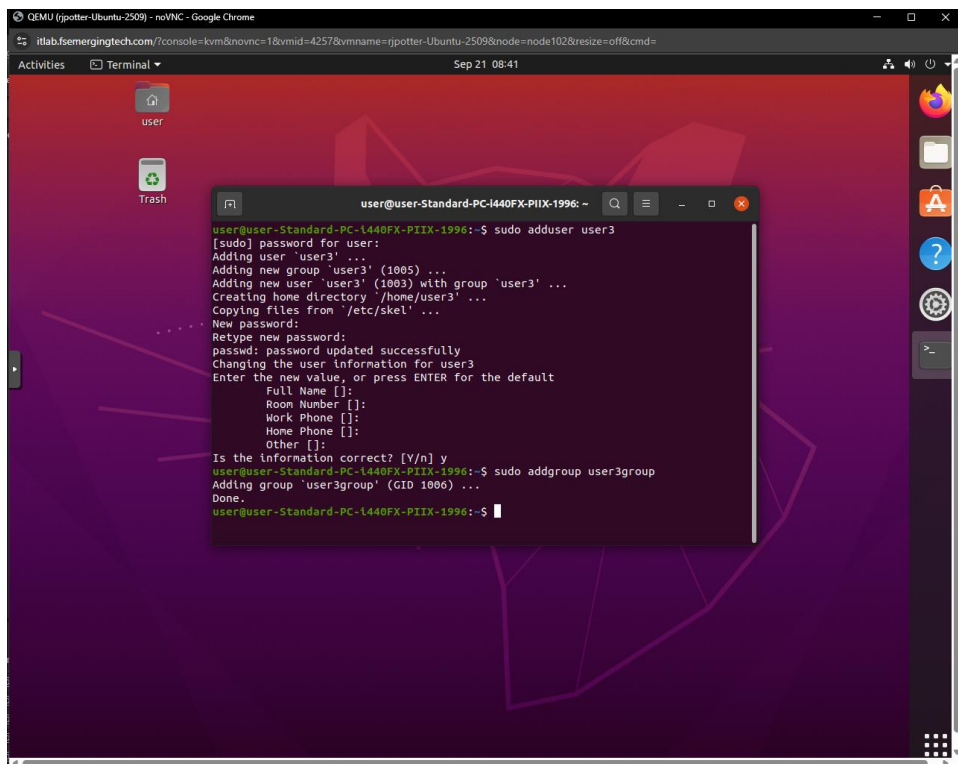
6. Explain in writing what is RAID parity:

Parity is a technique that checks whether data has been lost or written over when it is moved from one place in storage to another.

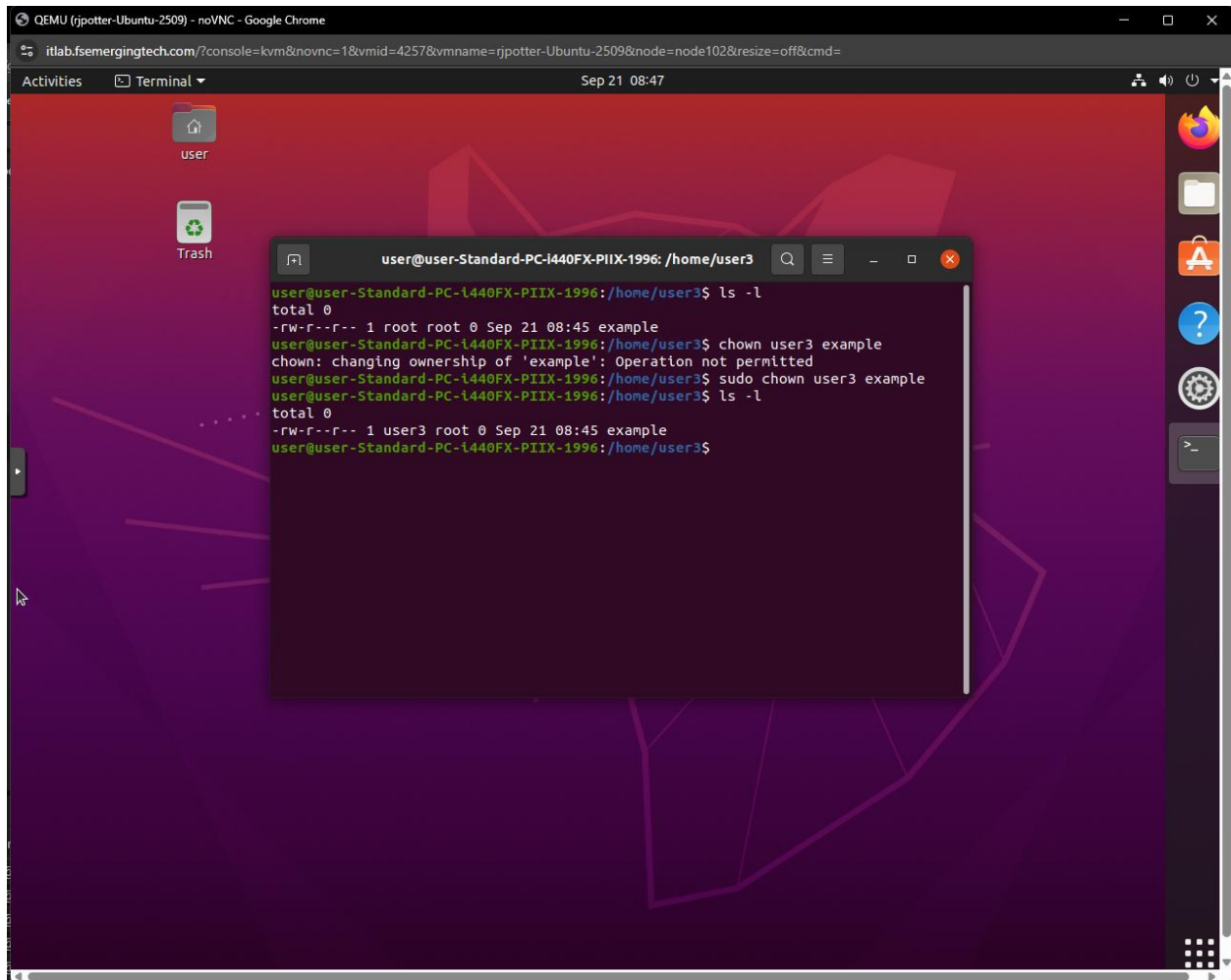
7. Screenshot how to find repos for Ubuntu:



8. Screenshot how to create a user and a group



9. Screenshot how to change ownership in the command line (What command does this?)



```
user@user-Standard-PC-i440FX-PIIX-1996: /home/user3$ ls -l
total 0
-rw-r--r-- 1 root root 0 Sep 21 08:45 example
user@user-Standard-PC-i440FX-PIIX-1996: /home/user3$ chown user3 example
chown: changing ownership of 'example': Operation not permitted
user@user-Standard-PC-i440FX-PIIX-1996: /home/user3$ sudo chown user3 example
user@user-Standard-PC-i440FX-PIIX-1996: /home/user3$ ls -l
total 0
-rw-r--r-- 1 user3 root 0 Sep 21 08:45 example
user@user-Standard-PC-i440FX-PIIX-1996: /home/user3$
```